

amended to depend from newly added claims 59-60. Claims 32, 34, 36 and 45 have been amended to depend from newly added claim 67. Claim 35 has been amended to depend from claims 66-71. Claim 35 has been amended to depend from claims 66-71. Claim 41 has been amended to depend from claim 68 and claims 44 and 50 have been amended to depend from claim 69. No new matter has been added or amendments made that narrow the scope of any elements of any claims. Accordingly, claims 3, 6, 13-15, 19, 21, 27, 32-39, 41, 44-47 and 50-71 are pending in this application and are submitted for consideration.

Applicants acknowledge and thank the Examiner for indicating that claims 9, 12, 16, 18, 20, 31-34, 36-39, 44-47 and 51 would be allowable over the prior art if amended to be in independent form. By this Amendment, claims 9, 12, 18, 18, 20, and 31 have been cancelled and the subject matter incorporated into newly added independent claims 56-60 and 67.

Claims 1, 2, 4, 5, 22, 23, 26, 28 and 42 are rejected under 35 U.S.C. § 102(e) as being anticipated by Justel et al. (U.S. Patent Application Publication 2001/0024088, "Justel"). In making this rejection, the Office Action took the position that Justel discloses all the elements of the claimed invention. However, claims 1, 2, 4-5, 22-23, 26, 28 and 42 have been cancelled. Therefore, Applicants submit that the rejection is moot and respectfully request withdrawal of the rejection.

Claims 1, 2, 7, 8, 24 and 25 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Asano et al. (U.S. Patent No. 6,008,582, "Asano") in view of Justel. In making this rejection, the Office Action took the position that Asano discloses all the elements of the claimed invention with the exception of disclosing a priming particle

generation member provided at a site facing the discharge area. However, claims 1-2, 7-8, and 24-25 have been cancelled. Therefore, Applicants submit that the rejection is moot and respectfully request withdrawal of the rejection.

Claims 28 and 40 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Amemiya et al. (U.S. Patent No. 5,742,122, "Amemiya") in view of Justel. In making this rejection, the Office Action took the position that Amemiya discloses all the elements of the claimed invention, except for disclosing a priming particle generating member. Justel is cited for disclosing this limitation. However, claims 28 and 40 have been cancelled. Therefore, Applicants submit that the rejection is moot and respectfully request withdrawal of the rejection.

Claim 41 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Amemiya, as modified by Justel, and further in view of Nanto. In making this rejection, the Office Action took the position that Amemiya, as modified by Justel, discloses all the elements of the claimed invention with the exception of disclosing a light absorption layer provided at a portion of the dielectric.

However, claim 41 is now dependent upon newly added independent claim 68. Therefore, Applicants submit that the rejection is moot and respectfully request withdrawal of the rejection.

Claim 43 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Amemiya, as modified by Justel, and further in view of JP '756. In making this rejection, the Office Action took the position that the combination of Amemiya and Justel discloses all the elements of the claimed invention with the exception of disclosing phosphor of the plasma display panel. However, claim 43 has been cancelled. Therefore,

Applicants submit that the rejection is moot and respectfully request withdrawal of the rejection.

Claims 1-3, 6, 10, 28, 29, 35, 42 and 50 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Nanto et al. (U.S. Patent No. 5,952,782, "Nanto") in view of Masahiko (JP 09-263756, "JP '756"). In making this rejection, the Office Action took the position that Nanto discloses all the elements of the claimed invention, except for disclosing the phosphor layer of the PDP. JP '756 is cited for disclosing this limitation. Claims 1, 2, 10, 28-29 and 42 have been cancelled. Claims 3, 6 are now dependent upon newly added claims 52-56, claim 35 is now dependent upon newly added claims 66-71, and claim 50 is now dependent upon newly added claim 69. Therefore, Applicants submit that the rejection is moot and respectfully request withdrawal of the rejection.

Claims 1, 11, 13, 14 and 15 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Nanto in view of Van Slooten (U.S. Patent No. 6,229,582). In making this rejection, the Office Action took the position that Nanto discloses all the elements of the claimed invention with the exception of a priming particle generating member provided at a site facing the discharge area. Van Slooten is cited for disclosing this limitation. However, claims 1 and 11 have been cancelled, and claims 13-15 have been amended to depend from newly added claims 57 and 58. Therefore, Applicants submit that the rejection is moot and respectfully request withdrawal of the rejection.

Claims 17, 19, 21 and 27 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Nanto, as modified by Van Slooten, and further in view of JP '756. However, claim 17 has been cancelled and claims 19, 21 and 27 now depend from

newly added independent claims 59 and 60, which incorporate the allowed subject matter of cancelled claims 18 and 20, respectively. Therefore, Applicants submit that the rejection is moot and respectfully request withdrawal of the rejection.

Claims 28, 29, 30 and 48 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 5-8 of Tokunaga et al. (U.S. Patent No. 6,344,715, "Tokunaga") in view of Van Slooten. In making this rejection, the Office Action asserted that although the conflicting claims are not identical, they are not patentably distinct.

However, the Applicants respectfully submit that this rejection is moot in light of the duly executed Terminal Disclaimer submitted herein. Therefore, Applicants request that the rejection be withdrawn.

Newly added claims 56-60 and 67 incorporate the allowed subject matter of cancelled claims 9, 12, 16, 18, 20 and 31, respectively. Therefore, Applicants submit that these claims also recite patentable subject matter.

Newly added claims 52-55, 61-66 and 68-71 are drafted to recite that a priming particle generating member is provided at a site facing each unit light emitting area between the front substrate and the back substrate.

Claim 52 further recites that the priming particle generating member is made up of an ultraviolet region light emissive layer formed of an ultraviolet region light emitting phosphor having persistence characteristics allowing continuous radiation of ultraviolet light as a result of excitation by ultraviolet rays having a predetermined wavelength. The ultraviolet region light emissive layer extends in the row direction at each site

opposing the row electrode pairs, and faces toward the discharge space of the unit light emitting areas adjacent to each other in the column direction.

Claim 53 further recites that the priming particle generating member is made up of an ultraviolet region light emissive layer formed of an ultraviolet region light emitting phosphor having persistence characteristics allowing continuous radiation of ultraviolet light as a result of excitation by ultraviolet rays having a predetermined wavelength. The ultraviolet region light emissive layer extends in column direction at each site between the unit light emitting areas adjacent to each other in the row direction, and faces toward the discharge space of the unit light emitting areas adjacent to each other in the row direction.

Claim 54 further recites a partition wall disposed between the front substrate and the back substrate, and including transverse walls extending in the row direction and vertical walls extending in the column direction to partition the discharge space into the unit light emitting areas. The priming particle generating member is made up of an ultraviolet region light emissive layer formed of an ultraviolet region light emitting phosphor having persistence characteristics allowing continuous radiation of ultraviolet light as a result of excitation by ultraviolet rays having a predetermined wavelength, and the ultraviolet region light emissive layer is provided between the front substrate and the transverse wall of the partition wall.

Claim 55 further recites a partition wall disposed between the front substrate and the back substrate, and including transverse walls extending in the row direction and vertical walls extending in the column direction to partition the discharge space into the unit light emitting areas. The priming particle generating member is made up of an

ultraviolet region light emissive layer formed of an ultraviolet region light emitting phosphor having persistence characteristics allowing continuous radiation of ultraviolet light as a result of excitation by ultraviolet rays having a predetermined wavelength, and the ultraviolet region light emissive layer is provided between the front substrate and the vertical wall of the partition wall.

Claim 61 further recites that the priming particle generating member extends in the row direction at a site opposing the row electrode pairs, and faces toward the discharge space of the adjacent unit light emitting areas in the column direction.

Claim 62 further recites that the priming particle generating member extends in the column direction at a site between the unit light emitting areas adjacent to each other in the row direction, and faces toward the discharge space of the adjacent unit light emitting areas in the row direction.

Claim 63 further recites that the partition wall disposed between the front substrate and the back substrate and including transverse walls extending in the row direction axed vertical walls extending in the column direction to partition the discharge space into the unit light emitting areas wherein said priming particle generating member is provided between the front substrate and the transverse wall of the partition wall.

Claim 64 further recites a partition wall disposed between the front substrate and the back substrate and including transverse walls extending in the row direction and vertical walls extending in the column direction to partition the discharge space into the unit light emitting areas, and the priming particle generating member is provided between the front substrate and the vertical wall of the partition wall.

Claim 65 further recites a stripe patterned partition wall disposed between the front substrate and the back substrate and extending in the column direction for partitioning the discharge space into the unit light emitting areas aligned in the row direction, and that the priming particle generating member extends in the row direction at a site opposing main bodies of row electrodes of the row electrode pairs.

Claim 66 further recites that the priming particle generating member is formed of an ultraviolet region light emissive material or a visible region light emissive material having persistence characteristics allowing emission for 0.1 msec or more, and includes a material having a work function smaller than that of dielectrics forming the protective dielectric layer.

Claim 68 further recites an additional portion provided at a portion of the dielectric layer opposing the border between the unit light emitting areas adjacent to each other in the column direction, and jutting toward the interior of the discharge space, and that the priming particle generating member is disposed on a portion of said additional portion facing the discharge space.

Claim 69 further recites a partition wall disposed between the front substrate and the back substrate, and defining the border between the unit light emitting areas adjacent to each other at least in the row direction. The priming particle generating member is placed on a front face of the partition wall opposing the front substrate and faces the discharge space, and is formed of an ultraviolet region light emissive material or a visible region light emissive material having persistence characteristics allowing emission for 0.1 msec or more.

Claim 70 further recites that the discharge space is filled with a discharge gas including a mixed inert gas containing 10% or more of a xenon gas.

Claim 70 further recites that priming particle generating member is formed of an ultraviolet region light emissive material or a visible region light emissive material having persistence characteristics allowing emission for 0.1 msec or more, and includes a material having a work function of 4.2 eV or less.

Applicants respectfully submit that newly added claims 52-55, 61-66 and 68-71 are patentable over the prior art of record because Justel is not prior art under 35 U.S.C. § 102 because the filing date of Justel is February 28, 2001. The effective priority dates of the subject application's priority applications are June 1, 2000, July 28, 2000, and November 29, 2000.

According to MPEP § 201.15, a priority claim can be perfected where the Applicants file a certified verified copy and translation of the foreign priority document. Therefore, Applicants hereby submit herewith a verified English translation of the Japanese foreign priority documents 2000-164863, 2000-164864, 2000-363050, 2000-229081 and 2000-229082 under 37 C.F.R. § 1.55(a). The certified copies were filed on 5-23-01 and the Examiner acknowledged receipt in the Office Action dated 11-20-02.

Therefore, the Examiner is respectfully requested to review the documents in view of the priority dates.

Applicants also respectfully submit that newly added claims 52-55, 61-66 and 68-71 are also patentable over Nanto, JP '756 and Van Slooten.

Nanto discloses a surface discharge plasma display panel having row electrodes X, Y and column electrodes A.

The English language Abstract of JP '756 discloses a phosphor and color plasma display panel having high luminous efficiency and high luminance by mixing a visible-light-emitting phosphor with an ultraviolet-emitting phosphor having a light emission peak wavelength in a specified wavelength region.

Van Slooten discloses a plasma display device in which the plasma discharge D emits visible or UV-light which excites the phosphors. At least a part of the surface of the walls of a compartment of the display device is provided with a layer of a material for emitting secondary electrons.

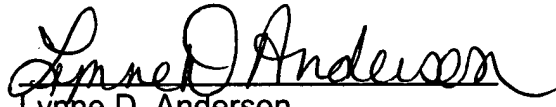
However, Applicants submit that Nanto, JP '756 and Van Slooten, either alone or in any combination fail to disclose or suggest the above-discussed limitations of newly added claims 52-55, 61-66 and 68-71.

In view of the foregoing, reconsideration of the application, withdrawal of the outstanding rejections, allowance of claims 3, 6, 13-15, 19, 21, 27, 32-39, 41, 44-47 and 50-71, and the prompt issuance of a Notice of Allowability are respectfully solicited.

If this application is not in condition for allowance, the Examiner is requested to contact the undersigned at the telephone listed below.

In the event this paper is not considered to be timely filed, the Applicants respectfully petition for an appropriate extension of time. Any fees for such an extension, together with any additional fees that may be due with respect to this paper, may be charged to counsel's Deposit Account No. 01-2300, **referencing docket number 107156-00068.**

Respectfully submitted,

A handwritten signature in black ink, appearing to read "Lynne D. Anderson". The signature is fluid and cursive, with the first name "Lynne" and last name "Anderson" clearly distinguishable.

Lynne D. Anderson

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Enclosures: Marked-up Copy of Specification
Marked-up Version of Amended Claims
Extra Claims Transmittal
Submission of Terminal Disclaimer
Submission of Verified Translation

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MARKED-UP COPY OF SPECIFICATION

Please replace the paragraph on page 16 beginning on line 7 and ending on line 11 with the following paragraph:

To attain the aforementioned object, a plasma display panel according to a fifteenth invention features, in addition to the configuration of the eleventh invention, in that the secondary electron emissive layer is placed between the [front] back substrate and the phosphor layer.

Please replace the paragraph on page 22 beginning on line 13 and ending on line 21 with the following paragraph:

To attain the aforementioned object, a plasma display panel according to a twenty-sixth invention features, in addition to the configuration of the first invention, in that a stripe-patterned partition wall is disposed between the front substrate and the back substrate and extends in the column direction for partitioning the discharge space into the unit light emitting areas aligned in the [column] row direction, and in that the priming particle generating member extends in the row direction at a site opposing main bodies of row electrodes of the row electrode pairs.

Please replace the paragraph on page 55 beginning on line 4 and ending on line 10 with the following paragraph:

The visible region light emissive layer is made of visible region light emitting phosphor having the persistence characteristics allowing continuous radiation of visible [ultraviolet] light for 0.1 msec or more, preferably, 1 msec or more (i.e. approximate length of time of the addressing period W_c) resulting from excitation by 147nm-wavelength vacuum ultraviolet rays radiated from xenon Xe by the discharge.

MARKED-UP VERSION OF AMENDED CLAIMS

Please cancel claims 1, 2, 4-5, 7-12, 16-18, 20, 22-26 and 28-31, 40, 42-43 and 48 without prejudice.

Please amend claims 3, 6, 13-15, 19, 21, 27, 32, 34-36, 41, 44-45, and 49-50 as follows:

3. (Amended) The plasma display panel according to [claim 2] any one of claims 52 to 56, wherein said ultraviolet region light emitting phosphor forming said ultraviolet region light emissive layer is a light emissive material having the persistence characteristics allowing radiation for 0.1 msec or more.

6. (Amended) The plasma display panel according to [claim 2] any one of claims 52 to 56, further comprising a light absorption layer provided at each position opposing a non-lighting area between the unit light emitting areas adjacent to each other in the row direction or the column direction of the front substrate, and opposite the back substrate in relation to said ultraviolet region light emissive layer.

13. (Amended) The plasma display panel according to [claim 11] any one of claims 57 and 58, further comprising:

a partition wall provided between the front substrate and the back substrate for partitioning the discharge space into the unit light emitting areas, and

wherein said secondary electron emissive layer is provided on a side wall-face of the partition wall.

14. (Amended) The plasma display panel according to [claim 11] any one of claims 57 and 58, further comprising a partition wall disposed between the front substrate and the back substrate for partitioning the discharge space into the unit light

emitting areas, and containing the material having a coefficient of secondary electron emission higher than that of the dielectrics forming said protective dielectric layer to be formed in combination with said secondary electron emissive layer.

15. (Amended) The plasma display panel according to [claim 11] any one of claims 57 and 58, wherein said secondary electron emissive layer is placed between the back substrate and the phosphor layer.

19. (Amended) The plasma display panel according to [claim 17] any one of claims 59 and 60, wherein said phosphor layer contains the ultraviolet region light emitting phosphor to be formed in combination with said ultraviolet region light emissive layer.

21. (Amended) The plasma display panel according to any one of claims [17 to 20] 59 and 60, wherein the ultraviolet region light emitting phosphor forming said ultraviolet region light emissive layer or the visible region light emitting phosphor forming said visible region light emissive layer is a light emissive material having persistence characteristics allowing radiation for 0.1 msec or more.

27. (Amended) The plasma display panel according to [claim 17] any one of claims 59 and 60, wherein a light absorption layer is provided at a position opposing a non-lighting area between the unit light emitting areas adjacent to each other in the row direction or the column direction of the front substrate, and opposite the back substrate in relation to said ultraviolet region light emissive layer or said visible region light emissive layer.

32. (Amended) The plasma display panel according to claim [31] 67, further comprising an additional portion provided at a portion of the dielectric layer, opposing

said transverse wall of said partition wall and said interstice, and protruding toward the transverse wall.

34. (Amended) The plasma display panel according to claim [31] 67, wherein said communication element is provided in said transverse wall of said partition wall.

35. (Amended) The plasma display panel according to [claim 28] any one of claims 66 to 71, wherein a light absorption layer is provided at a portion of the dielectric layer opposing said interstice.

36. (Amended) The plasma display panel according to claim [31] 67, wherein said transverse walls of said partition wall on the front substrate side respectively have higher parts in height than said vertical wall to form a groove between the adjacent higher parts for constructing said communication element.

41. (Amended) The plasma display panel according to claim [40] 68, further comprising a light absorption layer provided at a portion of the dielectric layer opposing said priming particle generating member.

44. (Amended) The plasma display panel according to claim [43] 69, wherein said priming particle generating member includes a material having a work function smaller than that of dielectrics forming the protective dielectric layer.

45. (Amended) The plasma display panel according to claim [31] 67, wherein said transverse walls of said partition wall on the front substrate side have respectively higher parts in height than said vertical wall, to form a groove between the adjacent higher parts, and said priming particle generating member is disposed in the groove.

49. (Amended) The plasma display panel according to any one of claims [29, 38, 43 and 46] 66 to 68, wherein said priming particle generating member includes a material having a work function of 4.2 eV or less.

50. (Amended) The plasma display panel according to claim [42] 69, wherein said priming particle generating member is formed of an ultraviolet region light emissive material or a visible region light emissive material having persistence characteristics allowing emission for 0.1 msec or more.